

REMARKS

By the amendment, claim 1 is revised to place this application in condition for allowance. Currently, claims 1-4 are before the Examiner for consideration on their merits.

In the Office Action, the Examiner has maintained the rejection of claims 1-4 under 35 U.S.C. § 103(a) based on JP 5-202447 to Eiji et al. (Eiji). In response to Applicant's Amendment of September 2, 2006, the Examiner took the position that overlap still existed between the claims and the teachings of Eiji, and therefore, a *prima facie* case of obviousness still existed. With the contention that the claim upper limit of 0.20% touching the lower limit of 0.20% of Eiji, the Examiner also alleged there was also no showing to evidence criticality with respect to the limit of carbon.

In response to the final rejection, claim 1 has been further revised to distinguish claim 1 over Eiji. While this amendment is being proposed after final, it is contended that entry of this amendment, at least for the purpose of an appeal, does not raise any new issues requiring further search or consideration. This amendment will again present arguments that either Eiji fails to establish a *prima facie* case of obviousness or that any such case is rebutted by the comparative evidence set forth in the specification.

In review, claim 1 now defines an upper limit of 0.17% carbon. Support for this amendment may be found in Table 1, wherein examples 1-21, which correspond to the invention, define an upper limit of 0.17% C. Further, on page 5, lines 2-3, the content of carbon is described as in a range of 0.14 to less than 0.20%, and more preferably in a range of 0.13 to 0.17%.

In light of the revision to claim 1, Applicant now contends that there is no overlap with respect to Eiji. As the Examiner has admitted, the lower limit of carbon for Eiji is 0.20%, whereas claim 1 now defines an upper limit of 0.17%. The absence of an overlap regarding carbon alone means that Eiji cannot be relied upon to allege that claim 1 is obvious under 35 U.S.C. § 103(a).

It is also contended that the upper limit of 0.17% is not so close to the lower limit of 0.20% of Eiji that a *prima facie* case of obviousness is established based on the proximity of the two values.

Accordingly, Eiji does not establish a *prima facie* case of obviousness with respect to claim 1, as amended.

Applicant also wishes to incorporate the previously-made arguments regarding the overall levels of carbon in Eiji and the other differences with respect to the claimed alloying elements other than carbon. That is, the invention is more than just a difference in carbon with respect to Eiji. Claim 1 defines a number of alloying elements and ranges as well as a carbon equivalent, and all of these components are important in achieving the aim of the invention. This is evidenced by the comparative examples in Table 1, wherein not only is carbon shown to be important, the presence of Mn, Cr, and V and their claimed ranges, and the carbon equivalent are also vital to achieve the aim of the invention. These differences further substantiate the argument that Eiji does not teach or suggest the invention as now defined by claim 1. Lacking a basis to allege obviousness, the Examiner has no choice but to withdraw the rejection based on Eiji and pass claims 1-4 onto issuance.

Even if the Examiner were to persist and contend that the claim 1, including the upper limit of 0.17% carbon, is still rendered obvious by the teachings of Eiji, Applicant's arguments with respect to this position are twofold. First, it is contended that the Examiner is engaging in the hindsight reconstruction of the prior art in light of Applicant's own disclosure. That is, what motivation would the Examiner have but for Applicant's teachings to baldly lower the carbon content of Eiji almost 20%, and specify the claimed carbon equivalent and the presence of Mn, Cr, and V in the claimed ranges. There just is no reason to do so, and any contention that such a modification is obvious is just hindsight.

Secondly, the comparative evidence set forth in the specification shows that claim 1 is unobvious over the teachings of Eiji. Each of the alloys 1-21 abiding by the invention has a carbon content within the claimed range, and each alloy also produces unexpected improvements of high strength, good toughness and no weld cracks. This contrasts with the comparative alloys 22-28, each of which showing some deficiency in one or more of the alloy's mechanical properties. For example, alloys 22 and 23 have high strength but poor toughness and weld cracking. Alloys 24-27 have poor toughness. Alloy 28 has inadequate strength. It is only by meeting the limitations of claim 1 with respect to the alloying components, their ranges, and

the carbon equivalent are properties attained that overcome the problems in the prior art. The combination of high strength, good toughness and a lack of weld cracking are unexpected in the prior art and the evidence showing these unexpected results rebuts any *prima facie* case of obviousness that may be asserted using the teachings of Kudo.

In summary, the amendment to claim 1 and the arguments made above require withdrawal of the rejection of claims 1-4.

Accordingly, the Examiner is respectfully requested to examine this application in light of this amendment, and pass claims 1-4 onto issuance.

If the Examiner believes that an interview with Applicant's attorney would be helpful in expediting prosecution of this application, the Examiner is invited to telephone the undersigned at 202-835-1753.

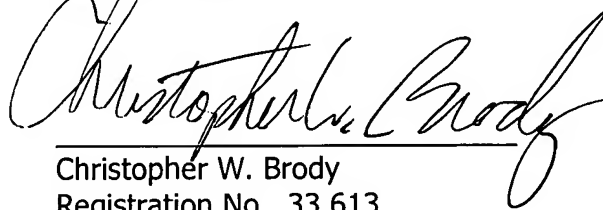
The above constitutes a complete response to all issues raised in the Office Action dated November 14, 2005.

Again, reconsideration and allowance of this application is respectfully requested.

Please charge any fee deficiency or credit any overpayment to Deposit Account No. 50-1088.

Respectfully submitted,

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